

22nd NREL Industry Growth Forum Denver, Colorado November 3-5, 2009

The 22nd NREL Industry Growth Forum was an overwhelming success, attracting nearly 600 investors, entrepreneurs, scientists and policymakers to participate in the three-day event highlighting emerging clean energy technology firms and business developments. NREL also introduced its first Opportunity Forum showcasing the latest clean energy opportunities in Colorado and across the country. The forum was held November 3-5 in Denver, Colorado and was hosted by the National Renewable Energy Laboratory (NREL). Participants included venture capitalists, angel investors, commercial and investment bankers, private lenders, NREL scientists, and representatives of the nation's most innovative and promising energy companies.



Judges mark their scorecards after an entrepreneur's presentation at the 22nd Industry Growth Forum. The forum featured 32 competitive presentations by start-up companies seeking financing. The judges were from private investment and clean energy firms.

Credit: Pat Corkery

The event featured 34 clean energy technology companies selected by 120 investors from a competitive slate of 285 entrants. These companies presented their business case and investment needs to a panel of investment professionals who critiqued presentations on the bases of feasibility, strength of management, marketing strategy, and potential return on investment. The presenting companies ranged from very early-stage entrepreneurial start-ups to later stage companies looking for expansion capital. The technologies represented by these firms spanned the clean energy and energy efficiency spectrum—from innovative thin-film PV technologies, carbon capture, battery technologies, hydrokinetic turbines, thermoelectric materials, utility-grade concentrating solar power systems, to new approaches to solid state lighting.

About the NREL Industry Growth Forum

For 15 years the NREL Industry Growth Forum has provided a relationship platform for the clean energy corporate development. The companies that have pitched at Forums 16 through 21 have successfully raised nearly \$2.5 billion¹ in growth financing and created over 3,000 US jobs². NREL's Industry Growth Forum is the largest national venture event focused exclusively on companies developing clean energy and energy efficiency technologies, and is positioned to gather quality business case presentations with good deal-flow potential for investors.

NREL's Forum offers an engaging interactive format that allows clean energy business leaders to present and receive feedback on summary business plans before a panel of the nation's leading clean

² Source: Hoovers

¹ Source: New Energy Finance

energy investors. Presenters are mentored in their preparation for the Forum by a select group of financial and business executives. The Forum establishes a win-win relationship between clean energy business leaders and entrepreneurs, the financial community, and ultimately, the clean energy industry as a whole by stimulating the creation of clean energy businesses.

The 2009 Business Case Presenters

Companies showcased at this event covered a wide spectrum of the most promising cutting-edge clean energy technologies in the industry. The 34 presenting companies listed below were selected from 285 entries to present their business plan to industry investment leaders, and represent emerging, innovative companies in the clean energy industry.

Alphabet Energy
Amprius
GridON
Anzode
HOMErgent
Banyan Energy
Hydrovolts
Reacon Power

Brace Bra

Beacon PowerIllumitexSkyFuelCool Earth SolarInnoSepraSolexantCooleradoION EngineeringStellarisEcovative DesignIoxusTerraLUX

Ener-G-Rotors Lightwave Photonics Versa Power Systems

Evolutionary Genomics Lumiette Widetronix

Exro Technologies Nano-C WindPole Ventures

The 2009 Best Venture Award Winners

Three entrepreneurial companies were singled out from the 34 presenters to win the 2009 Clean Energy Venture Awards sponsored by Deutsche Bank Climate Change Advisors (DBCCA). Gisele Everett, Head of Private Equity Investments for DBCCA, presented three cash awards that included \$10,000 for Best Venture and \$5,000 each for the two Outstanding Presentation Awards. NREL will also provide the winners with inkind commercialization support matching the cash award to help increase the companies' chances of commercial success.

Ecovative Design took the top prize and received the Best Venture award. Ecovative Design is a biomaterials startup founded in 2007 that creates composite materials that replace conventional foams and plastics. Ecovative's MycoBondTM uses a growing organism to transform low-value agricultural byproducts into high-performance composites.



Organizers and sponsors of the 22nd Industry Growth Forum selected three award winners. From left: Tod Perry of NREL, Exro Technologies CEO John MacDonald, Marty Murphy, NREL, Gisele Everett of Deutsche Bank Climate Change Advisors, Bruce Kahn of DBCCA, Bill Farris, NREL, Eben Bayer of Ecovative Design and Evolutionary Genomics CEO Ginny Orndorff. Credit: Pat Corkery

An Outstanding Presentation award went to *Exro Technologies* for bringing to market a unique cleanenergy electrical generator capable of delivering double-digit increases to the annual kilowatt hours produced out of a wind turbine, without increasing capital costs.

The second Outstanding Presentation award went to Colorado based *Evolutionary Genomics* for developing and successfully patenting, a cost-effective technology platform to identify the key genes that control fundamental biofuel plant and algae traits such as biomass, stalk sugar, grain yield, and oil content.

Special Presentations

In addition to the presentations by entrepreneurial companies, the Forum featured addresses and panels on a broad range of issues of interest to the industry including the investment and financing strategies that are driving the commercialization of quality renewable energy technologies. In opening remarks, NREL Director Dan Arvizu directly challenged forum participants to compete differently in the clean energy marketplace. "China, India, Brazil and other nations already are embracing existing renewable energy technologies both as a source of carbon-free power and economic growth, while the U.S. has slipped behind many nations in clean energy generation and manufacturing.

Jobs and growth must come from the next generation of clean energy technologies that NREL is helping to both develop and commercialize, Director Arvizu said.

"China is particularly alarming," he told the forum. "Of the top 10 photovoltaic companies in the world, five are in China. They are manufacturing technologies that were developed here in very high volumes."



Colorado Gov. Bill Ritter, left, and NREL Director Dan Arvizu field questions about the clean energy economy at the 22nd Industry Growth Forum in Denver. The forum is organized by the Laboratory. Credit: Pat Corkery

"We need to approach energy differently and the key will be innovation. This forum brings together the clean energy innovators, investors and policymakers needed to bring about transformational change."

Bill Reinert, National Manager of Toyota Motor Sales'

Advanced Technology Group, continued discussion of change with his keynote on "The Vehicle Revolution and the Future of Driving". As the manager of Toyota's advanced technology group, Reinert is focused on a variety of new technologies and shared his thoughts on a range of vehicle options including hybrid-electric vehicles, hydrogen fuel cells, electric vehicles, and plugin hybrids.

Presentations of promising clean energy technologies were balanced by sobering comments by some of clean energy's most prominent investors. The global

recession has reduced large institutional investors in the sector from 16 in 2007 to just six today. Private investors told the forum they are seeking deeper and more detailed information from start-ups because their portfolios have shrunk and their margin for investment error has been erased. Even solar projects in the desert southwest are having difficulty finding financing right now, they said.

Yet demand for renewable energy technologies remains high, with backlogs for wind turbines, solar panels and related equipment running as high as two years in some cases. Additionally, two-thirds of the 50 U.S. states have adopted renewable energy portfolio standards and other policies to establish clean energy markets over the next two decades.

"Just as the renewable energy industry was growing for the first time, we fell off a cliff," said Jeffery Leonard, CEO of the Global Environmental Fund. "But the key government mandates will change markets. There is a revolution going on."

Juan Enriquez, Managing Director, Excel Venture Management and bestselling author and futurist continued the talk of revolution and delighted our lunch crowd with his talent for bridging disciplines to build a coherent look into the future of science, energy, and society. He entertained the audience with his fresh perspectives on energy and fuels not as just resources to be mechanically mined but as biological systems which can be programmed and harnessed.

Other informative panels covered a range of topics such as workable strategies to attract financing in today's constrained markets to the evolving exit strategies of investors including the changing face of IPO's and M&A's. See the agenda and list of presentations on the Forum <u>website</u> for a complete list of topics and panels.

NREL Clean Energy Opportunity Forum

NREL's first Clean Energy Opportunity Forum was a success with broad participation from Colorado energy and economic development organizations. The Opportunity Forum is an extension of the Growth Forum to encourage networking and future collaborations in Colorado and across the U.S. Governor Bill Ritter kicked-off the day with his vision of the New Energy Economy, followed by an overview of the major clean energy funding opportunities and resources available through NREL, DOE, and Colorado officials. Following these presentations, two hours of networking time was available for one-on-one meetings with investors and venture capital firms as well as organized "speed networking" with policymakers, officials, and a cadre of seasoned industry experts. Overall, the event organized nearly 200 private one-on-one meetings and plan to arrange even more for next year.



Ryne Raffaelle, NREL's director of the National Center for Photovoltaics, answers questions about research and collaboration possibilities between the Laboratory and entrepreneurs at the 22nd Industry Growth Forum. This year's forum experimented with a "speed dating" format that paired entrepreneurs with Laboratory officials and venture capitalists for brief meetings. *Credit: Pat Corkery*

The 23rd NREL Industry Growth Forum – Fall 2010 in Denver, CO

Applications to present at the 23rd NREL Industry Growth Forum will be accepted beginning in the late spring of 2010. Look for more information and application details about the next Forum soon at www.cleanenergyforum.com. The 23rd Forum will be in Denver, Colorado in October or November 2010.

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